

## STATE MACHINE FUNCTION BLOCK WITH A USER MODIFIABLE STATE TRANSITION CONFIGURATION DATABASE

### ABSTRACT

A control system, a safety system, etc., within a process plant may each use one or more state machine function blocks that can be easily integrated into a function block diagram programming environment. Such a state machine function block may include one or more inputs, which may cause a state machine implemented by the state machine function block to change states. The state machine function block may determine a next state to which it is to transition based, at least in part, on data indicative of the next state to which to transition, if any. The configuration data may be retrieved from a database based on the current state of the state machine and at least one of the inputs. The state machine function block may also include one or more outputs that are generated based on the state of the state machine.